STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

February 9, 2012

CONTRACT: DB00055
PROJECT: 17BP.2.P.7
COUNTIES: Jones, Lenoir, Pitt
DESCRIPTION: Cleaning and Painting of Bridge Substructures #8, #23, #29 in Jones County; #76, #77 in Lenoir County; and #42, #84 in Pitt County
ADDENDUM NUMBER 2

TO: Prospective Bidders

Please note the following revision to the contract proposal for the above-referenced project.

- Replace Pages 29-30 of the original document with the ones herein attached. The paint systems for these structures will be System 2 in lieu of System 1.

The remainder of the proposal document is unaffected. If you should have any questions concerning this addendum, please call me at (252) 695-2044.

Sincerely,

Aaron Bullard, PE
Division Contract Officer

Attachments

cc: Ms. Maria Rogerson, PE
Mr. John Hughes

SPECIFICATIONS:

The North Carolina Department of Transportation (NCDOT) *Standard Specifications for Roads and Structures* dated January 2012; together with these Special Provisions apply to this project. Surface preparation and painting are performed in accordance with Section 442 except where otherwise noted in these Special Provisions. The Paint materials must meet the applicable materials specifications under Section 1080. Materials approvals are in accordance with 3.0 Materials of this Special Provision.

1.0 PREPARATION OF SURFACES:

1.1 Power washing – Before any other surface preparation are conducted, all surfaces shall be power washed to remove dust, salts, dirt and other contaminants. All wash water shall be contained, collected and tested in accordance with the requirements of NCDOT Managing Bridge Wash Water specification. Under no circumstances will surface preparation or painting activities be started over cleaned surfaces until all surfaces are free of standing water and dry to the touch, and then only after approval by the Engineer.

1.2 Blasting is done with recyclable steel grit meeting the requirements of Section 1080-13. The profile must be between 1.0 and 3.0 mils when measured on a smooth steel surface. A minimum of two tests per beam/girder and two tests per span of diaphragms/cross bracing shall be conducted and documented.

1.3 Tarpaulins are spread over all pavements and surfaces underneath equipment utilized for abrasive recycling and other lead handling equipment or containers. This requirement shall be enforced during activity and inactivity of equipment.

1.4 Before the contractor departs from the work site at the end of the work day, all debris generated during surface preparation and all dust collector hoses, tarps, or other appurtenances containing blasting residue are collected in approved containers.

1.5 The Contractor cleans a three inch by three inch area at each structure to demonstrate the specified finish and the inspector preserves this area by covering it with tape, plastic or some other suitable means so that it can be retained as the DFT gage adjustment standard. An acceptable alternative is for the Contractor to provide a steel plate with similar properties and geometry as the substrate to be measured.

1.6 The contractor and or quality assurance representative shall notify the Engineer of any area of corroded steel which has lost more than 50% of its original thickness.

1.7 All parts of the bridges not to be painted, and the travelling public, shall be protected from overspray. The Contractor shall submit a plan to protect all parts of bridge that are not required to be painted, in addition to a plan to protect the traveling public and surrounding environment while applying all coats of paint to a structure.

1.8 Contractor must insure that chloride levels on the surfaces are 7 $\mu g/cm^2$ or lower using an acceptable sample method in accordance with SSPC Guide 15. The frequency of testing shall be 2 tests per span after all surface preparation has been completed and immediately prior to painting. Test areas selected shall represent the greatest amount of corrosion in the span as determined by the Engineers' representative.

1.9 All weld splatter, slag or other surface defects resulting in a raised surface above the final paint layer shall be removed prior to application of primer coat.

2.0 PAINTING OF STEEL:

Paint System 2, as specified in these special provisions and Section 442 of NCDOT's Standard Specifications, is to be used for this work. System 2 is an Inorganic Zinc primer and Coal Tar Epoxy

Topcoats over blast cleaned surfaces in accordance with SSPC-SP-10 (Near White Blast). Perform all mixing operations over an impervious surface with provisions to prevent runoff to grade of any spilled material. The contractor is responsible for reporting quantities of thinner purchased as well the amounts used. No container with thinner shall be left uncovered, when not in use.

Any area where newly applied paint fails to meet the specifications must be repaired or replaced by the Contractor. The Engineer approves all repair processes before the repair is made. Repaired areas must meet the specifications. The Contractor applies an additional finish coat of paint to areas where the tape adhesion test is conducted.

3.0 MATERIALS:

Only paint suppliers that have a NCDOT qualified inorganic zinc primer may furnish paints for this project. All paints applied to a structure must be from the same supplier. Before any paints are applied the Contractor provides the Engineer a manufacturer's certification that each batch of paint meets the requirements of the applicable Section 1080 of the *Standard Specifications*.

The inspector randomly collects a one pint sample of each paint product used on the project. Additional samples may be collected as needed to verify compliance to the specifications.

Do not expose paint materials to rain, excessive condensation, long periods of direct sunlight, or temperatures above 110F or below 40F. In addition, the Contractor shall place a device which records the high, low and current temperatures inside the storage location. Follow the manufacturer's storage requirements if more restrictive than the above requirements.

4.0 INSPECTION:

Surface Preparation for System 2 shall be in accordance with SSPC SP-10. Any area(s) not meeting the requirements of SSPC SP 10 shall be remediated prior to application of coating. Surface inspection is considered ready for inspection when all blast abrasive, residue and dust is removed from surfaces to be coated.

Quality Assurance Inspection - The Contractor furnishes all necessary OSHA approved apparatus such as ladders, scaffolds and platforms as required for the inspector to have reasonable and safe access to all parts of the work. The contractor illuminates the surfaces to be inspected to a minimum of 50-foot candles of light. All access points shall be illuminated to a minimum of 20-foot candles of light.

NCDOT reserves the right for ongoing QA (Quality Assurance) inspection to include but not limited to surface contamination testing, adhesion pull testing and DFT readings as necessary to assure quality.

The Contractor informs the Engineer and the Division Safety Engineer of all scheduled and unannounced inspections from SSPC, OSHA, EPA and/or others that come on site and furnishes the Engineer a copy of all inspection reports except for reports performed by a third party and or consultant on behalf of the contractor.

Inspection Instruments - The Contractor furnishes at least the following calibrated instruments at site and conducts the quality control testing:

Sling Psychrometer - ASTM E-337 – bulb type
Surface Temperature Thermometer
Wind Speed Indicator
Tape Profile Tester – ASTM D-4417 Method C
Surface Condition Standards – SSPC VIS-1 and VIS-3
Wet Film Thickness Gage – ASTM D-4414
Dry Film Thickness Gage – SSPC-PA2 Modified
Solvent Rub Test Kit – ASTM D-4752
Adhesion Test Kit – ASTM D-3359 Method A (Tape Test)